



Guidelines on Information Deliverables for Research Projects at Acadia National Park

06/22/09

INTRODUCTION

Science is playing an increasing role in guiding National Park Service (NPS) management activities. The NPS is charged with protecting and maintaining data and associated information that have been collected through scientific research so they can be used to assist new investigations and/or inform current and future management decisions. This document provides guidance to individuals planning to conduct research at Acadia National Park (ACAD) about NPS data policies and standards.

GENERAL REQUIREMENTS

At the completion of a study, researchers are requested to submit to the park two paper (one unbound) and one electronic copy of all final reports, publications, and theses/dissertations produced as a result of the permitted project. Copies of all associated data (including, field notes, maps, slides, photographs, charts/graphs, tabular and GIS data with associated metadata) are also requested to be submitted to the park. These materials will be permanently archived in the park's museum collection. **NOTE: If your project is federally funded you are required to submit these materials and may have more specific formatting requirements.**

To facilitate project administration and effective communication, a park staff member will be assigned as a liaison to each permitted project. **PRIOR** to the start of a study in ACAD, the park liaison will contact the researcher to review the project activities and types of information that will be collected, coordinate any logistical issues, and discuss the products that will be delivered to the park. Acadia's Data Manager (Bill Gawley; 207/288-8723 or bill_gawley@nps.gov) and GIS Specialist (Karen Anderson; 207/288-8724 or karen_b_anderson@nps.gov) can provide further guidance on data formats, metadata requirements, and product delivery schedules. Investigators who plan to collect specimens that will be archived and/or displayed in a museum collection, must also contact the park's museum technician (John McDade; 207/288-8729 or John_McDade@nps.gov) **PRIOR** to initiating any collecting to discuss collecting responsibilities (such as specimen preparation and cataloging) and ultimate disposition of the specimens.

DELIVERY

At the conclusion of the project, researchers will provide the park liaison with project data and information previously agreed upon, which may include:

- **Written reports, publications, theses/dissertations, and other manuscripts** (two copies of each, one of which is unbound; we also request one electronic copy- preferably .pdf of MS Word format)
- **Raw data** (including field data sheets, field notes, lab reports, drawings, maps, literature reviews/bibliographies, databases/spreadsheets, etc.)
- **Analyzed data** (including reports, charts, and graphs)
- **GIS data**
- **Tabular and GIS Metadata Worksheets**
- **Photos and negatives; video and audio tapes** created during research activities
- **Specimens and species lists**

Note: Please submit all digital data or applications to Acadia National Park on media that are compatible with our current hardware (CD-ROM, DVD, posted for ftp retrieval, or attached to email).

SPECIFICATIONS:

TABULAR (NON-SPATIAL) DATA

The NPS-preferred storage of raw field data is in relational MS Access 2003 databases. The park's data manager can provide further suggestions on specific aspects of database design and structure that can make your data more useful to park managers and future researchers. Additionally, the NPS Inventory and Monitoring Program has developed a database template (found at <http://science.nature.nps.gov/im/apps/template/index.cfm>) that can be used for your study data and will ensure that they conform to NPS standards.

Although Access is the NPS database standard, data stored in commonly available software such as Excel, dbf, delimited text, etc. are also suitable for submission. Metadata for all data fields should be provided. Electronic data are requested to be submitted to the park in both digital (CD preferred) and hardcopy (paper) form.

GIS (SPATIAL) DATA

You need only submit final GIS data layer(s) you developed as a result of your research or investigation at Acadia National Park. "Base layers", such as USGS roads, shoreline, streams, etc., do not need to be submitted **unless** (a) you have modified them drastically or (b) you have made specific changes that pertain directly to your study that would be difficult or impossible to duplicate (including attributes/databases).

- *Formats:* All geospatial data or applications delivered to Acadia National Park should be compatible with the park's current software (ArcGIS ver. 9.3).

Vector geospatial data: should be shapefiles, geodatabases, or coverages (transferred as Arc/Info interchange [Eoo]files).

Raster data: is to be supplied as an Arc/Info GRID and Arc/Info interchange file [Eoo].

- *Projection/Datum specifications:*

Projection: Universal Transverse Mercator (UTM) coordinates. Acadia National Park is in UTM Zone 19.

Datum: North American Datum of 1983 (NAD-83)

Ellipsoid: Geodetic Reference System 80 (GRS80)

Units of measure: meters.

METADATA

Metadata are "data about your data." This means we need information such as the format of your spatial or tabular data, the process steps and methods to collect or analyze the data, the originator and distributor, and where and when the data were collected. This will allow others, perhaps even 20 to 30 years from now, to have an idea what is included in your project data and whether they will be useful for their purposes.

In accordance with Executive Order 12906, any GIS data layer created by research funded by federal agencies must be documented with metadata conforming to FGDC (Federal Geographic Data Committee) standards. Metadata describing non-geospatial data sets are also needed. The park has developed "metadata worksheets" (available from the park data manager) to help you give us the appropriate information. Please review the worksheets before creating your GIS data or collecting your tabular data so you know what kind of information to make note of. You may find it helpful to jot down notes related to your procedures, tolerances, etc. as you go along--by the time you get ready to create metadata you will probably not remember quite what you did. ArcGIS users should enter their metadata directly into ArcCatalog.

PHOTOGRAPHS

Our preference is for non-digital photographs and images (slides or prints, color or monochrome). If digital photographs are provided to the park, they should be in .tif or .jpg formats, with a minimum resolution of 300 dpi. Digital photos should be submitted on CD or DVD, along with hard copies printed on photo paper or acid-free paper. All photos should have accompanying metadata. Metadata specifications are available from the park data manager.